PNEUMATOSIS INTESTINALIS IN A COHORT OF CHILDREN WITH NEUROLOGICAL IMPAIRMENT: A PATIENT GROUP WITH A MANAGEMENT DILEMMA

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Aim: Pneumatosis Intestinalis (PI) with or without pneumoperitoneum has previously been documented in children with a wide range of conditions. We describe a series of neurologically impaired children with pneumatosis intestinalis. We studied the patient characteristics to formulate an optimum management plan.

Method: We looked retrospectively for children beyond infancy who were referred for surgical opinion with radiographic evidence of pneumatosis intestinalis. Five patients were identified between 2011-2015. We looked into patients demographics, medications, feeding routes and formulas and associated comorbidities, using both patients medical notes and electronic records.

Main results: Five patients (3F:2M) with a median age of 7 years (range 5-9) were referred for surgical opinion with evidence of PI on their abdominal x-rays. Four of the patients had an associated pneumoperitoneum. Interestingly, all patients had cerebral palsy, such that they were significantly neurologically impaired and unable to communicate clearly. Four patients had a laparoscopy/laparotomy at first presentation, with no findings of ischaemic bowel, peritoneal soiling or perforation despite the presence of pneumoperitoneum on x-rays, however, obvious colonic pneumatosis was seen. Four patients were gastrostomy fed, one was jejunally fed. Three patients were medically treated for constipation and two for chronic lung disease (CLD). Four patients had subsequent presentations, which were successfully managed without surgical intervention, despite the presence of pneumoperitoneum.

Conclusion: We describe PI in a subset of patients with a background of neurological impairment where symptoms may be vague and examination unreliable, which can lead to delay in presentation. The presence of pneumoperitoneum doesn’t mandate bowel ischaemia and perforation. We suggest a longer period of conservative management as long as patients remain clinically stable, saving Surgical intervention for those who deteriorate